



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/938,100

08/22/2001

Bogdan Szafraniec

10010292-1

9826

7590

12/16/2004

AGILENT TECHNOLOGIES, INC.

Legal Department, DL429

Intellectual Property Administration

P.O. Box 7599

Loveland, CO 80537-0599

EXAMINER

BROWN, KHALED

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,100

Applicant(s)

SZAFRANIEC ET AL.

Examiner

Khaled Brown

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 17-29 is/are allowed.
6) ☒ Claim(s) 1,3-6,10 and 12-16 is/are rejected.
7) ☒ Claim(s) 2,7-9 and 11 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-22-04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-6,10,12,13 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gisin et al (US 5852496) in view of Iwaoka et al (US 4856899).

Re clms 1,4,10: Gisin et al discloses a system and method for measuring optical characteristics of an optical device under test (DUT), said system comprising: a light source for generating an optical signal applied to the optical DUT (Gisin et al 16); transmitting the light signal on a test interferometer (Gisin et al 51), said interferometer being optically coupled to said light source; and a computing unit coupled to said interferometer (Gisin et al 21), said computing unit utilizing amplitude and phase computational components to aid in the determination of optical characteristics of the optical DUT (Gisin et al Col 2 lines 53-57). However Gisin et al does not disclose a reference interferometer for receiving a reference optical signal. Iwaoka et al teaches that a tunable laser light source should include a reference interferometer for receiving a reference optical signal (Iwaoka et al Fig 21) because it increases the variable range of the oscillation frequency of the tunable laser (Iwaoka et al Col 12 lines 4-7).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to replace the light source for receiving a reference optical

signal of Gisin et al (Gisin et al 16) with the tunable laser light source of Iwaoka et al having a reference interferometer for receiving a reference optical signal (Iwaoka et al Fig 21) because it would increase the variable range of the oscillation frequency of the light source in the apparatus of Gisin et al as suggested by Iwaoka et al.

Re clm 3: group delay (Gisin et al Col 4 lines 37-63)

Re clm 5: heterodyne beat signal (Gisin et al Col 4 lines 16-19)

Re clms 6,16: non-dispersive or compensated for dispersion (Iwaoka et al Fig 21)

Re clm 12: group delay (Gisin et al Col 4 lines 37-63)

Re clm 13: heterodyne beat signal (Gisin et al Col 4 lines 16-19)

Re clm 14: tunable laser light source (Iwaoka et al Fig 21)

Re clm 15: computing the amplitude and phase (Gisin et al Col 4 lines 32-36)

Allowable Subject Matter

Claims 17-29 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose or suggest utilizing orthogonal filters in conjunction with the rest of the claimed subject matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 2,7-9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose or suggest utilizing orthogonal filters in conjunction with the rest of the claimed subject matter.

Response to Arguments

Applicant's arguments filed 9-27-04 have been fully considered but they are not persuasive. The applicant argues that the Iwaoka does not teach or suggest a reference interferometer (Remarks pgs 9 and 11). However Iwaoka does teach a reference interferometer in Fig 21. The beam splitter BS3a, mirror M1a, and mirror M2a forms a classic Michelson interferometer and it is used to modulate the frequency of the light source. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Szfraniec et al 6486961, Sorin et al 5202745, Rosenfeldt et al, 6606158, Seago et al 5801830, Cyr 6204924, Ozeki et al 5390017, Deck 6434176, Cliche et al 5780843 and Wyeth et al 4905244.

Note: a signed copy of the IDS filed 3-22-04 is attached to this office action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

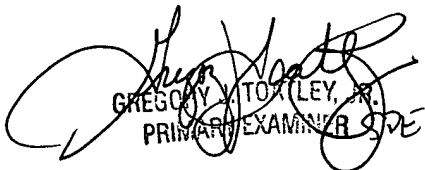
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khaled Brown whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley Jr. can be reached on 571-272-2800 Ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB
December 12, 2004


GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER
DEC 2004